

## Project Proposal

### **“RE-ESTABLISHMENT OF THE PROSTHETIC AND ORTHOTIC PROGRAM AT HÔPITAL SACRÉ COEUR, MILOT HAITI”**



#### 1. INTRODUCTION

Hôpital Sacré Coeur (HSC), the largest private hospital in Northern Haiti, has been a steadfast provider of healthcare services for nearly 30 years. Situated in Milot, this 200-bed facility has played a crucial role in fostering a healthier Haiti, impacting lives one dignified step at a time. Recognizing the pressing need to address the challenges faced by amputees in the region, the Northern Arizona Volunteer Medical Corp (NAVMC) proposes the re-opening of a Prosthetic and Orthotic (P&O) program at Hôpital Sacré Coeur.

## 2. PROJECT OVERVIEW

### A. Project Goal:

The primary goal is to re-establish the Prosthetic and Orthotic (P&O) program at HSC to serve the estimated 2.5 million residents of Northern Haiti, ensuring access to high-quality, low-cost prosthetics and orthotics in a sustainable fashion.

### B. Project Background:

The previous P&O lab at HSC, started in 2012, was a testament to the commitment of providing comprehensive care. The lab provided prosthetic limbs and lower extremity orthosis for over 400 patients. During the COVID-19 pandemic, the lab was temporarily repurposed as a COVID ward. Jaunty pictured above, was the recipient of one of the prosthetic limbs created by the lab prior to its closure. When the prosthesis broke, there was no lab to repair it and he lived without the ability to walk for two years until NAVMC visited North Haiti in 2022. Dr. Durham brought the prosthesis back to the US, had it repaired and returned it to Juanty who is now using the prosthesis and is able to return to work. His story is one of thousands in Haiti.

## 3. THE VISION

### A. Service Quality:

The vision is to create a self-sustaining prosthetics center at HSC that is dedicated to crafting high quality orthotics and prosthetics.

### B. Training Hub:

The HSC Prosthetic Center will become a training hub for prosthetists throughout the country, empowering Haitians with the skills to fabricate quality prosthetics and orthotics. This initiative aligns with the long-term goal of self-sustainability, with the facility managed and run by skilled local professionals.

## 4. PARTNERS

### 1. Hôpital Sacré Coeur:

HSC, with its previous experience and existing infrastructure, expresses interest in re-establishing the P&O lab on its campus. Their commitment includes the provision of space, utilities, equipment, and salaried employees. HSC stated their biggest gap is in the procurement of supplies for prosthetics and orthotics. They want a 3-year funding commitment for supplies. (<https://crudem.org>)

### 2. SwissLimbs:

Leveraging their experience in establishing orthopedic workshops in developing countries, Swiss Limbs brings valuable expertise in providing affordable and high-performing orthopedic equipment. They emphasize training local personnel, aligning with our vision for sustainability. (<https://www.swisslimbs.org>)

**3. Northern Arizona Volunteer Medical Corp:**

NAVMC has been involved in building the orthopedic program at Hopital Bernard Mevs (HBM) in Port au Prince. NAVMC has not sent teams to HBM since COVID. Violence has made it unsafe for medical teams to return to Port-au-Prince. The programs started by NAVMC at HBM have been sustained despite these challenges. Northern Haiti has remained quiet and is a safe environment in which to work. NAVMC has sent individuals to North Haiti in the last 2 years. NAVMC will coordinate efforts among partners and provide essential support for the establishment and operation of the HSC Prosthetic Center. (<https://navmc.org>)

**4. Food For the Poor:**

FFTP, with previous involvement in prosthetic lab programs, expresses interest in supporting the HSC Prosthesis Center, contributing to the overall success of the initiative. FFTP is currently involved in reopening the prosthetic lab program at HBM in Port-au-Prince. (<https://foodforthe poor.org>).

**5. John Lovejoy Jr., MD:**

Founder of the original Prosthetic Lab and an orthopedic surgeon who led many medical teams to Hopital Sacre Coeur. Lovejoy identified the lack of a prosthetic center as a crucial service gap. He estimated that this left 5000 amputees without access to prosthetic devices and unable to provide for their families. Dr. Lovejoy addressed this pressing need by establishing the lab. His notes and lab photos are available at the end of this proposal. He wants to see the lab reopen and is willing to help raise funds.

**6. SPSCO/Hanger:**

Through the donation of prosthetic and orthotic supplies, SPSCO/Hanger offers an additional supply chain for the HSC Prosthesis Center.

## **5. IMPLEMENTATION PLAN**

**1. Facility Setup:**

Utilize existing facilities at HSC for the initial setup, with a long-term vision of establishing a dedicated building either on or off-site.

**2. Staff Training:**

Provide refresher and updated training to the two prosthetists currently employed at HSC, led by the experienced team from Swiss Limbs. There are two prosthetists at HSC working in other capacities:

- a. Dantus Gilles and Daniel Etienne have a technician degree in Prothesis and Orchesis Category II accredited with ISPO from the University of Don Bosco -El Salvador. Dantus is also certified in managing children with clubfoot.
- b. Refresher training and updated training is necessary. The Swiss Limbs team would lead this.

- c. Training can be open to other prosthetists in Haiti.

### **3. Project Phases:**

Initiate the project with a focus on lower limb care, gradually expanding services based on the success and sustainability of the program. Project start time is dependent on secure funding, but the goal is to begin in 2024.

### **4. Supplies:**

The initial purchase of prosthetic and orthotic supplies will meet the demands of the program for the first three years.

## **6. Sustainability**

To achieve sustainability in a prosthetic program in Haiti, where financial constraints are prevalent, the following plan will be implemented:

### **1. Affordable Prosthetic Devices:**

- Leverage Swiss Limbs' inexpensive but high-quality mono limb device (under \$100 USD) to keep costs down. This limb is in use in several other programs.
- Explore partnerships or bulk purchase agreements with Swiss Limbs to ensure a stable and affordable supply of prosthetic devices.

### **2. Income-Based Pricing:**

- Patients who can afford to pay will be charged according to their financial capacity, ensuring affordability and inclusivity.
- Implement a sliding scale payment system, allowing flexibility based on individual financial situations.

### **3. Insurance Coverage Utilization:**

- Work on establishing partnerships with local and international insurance providers to expand coverage for prosthetic services.
- Patients with insurance will be charged, and the funds obtained through insurance claims will contribute to sustaining the program.

### **4. Community Support and Fundraising:**

- Engage in community outreach and education to raise awareness about the prosthetic program.
- Organize fundraising events and campaigns to garner support from local and international communities.
- Encourage donations and sponsorships from businesses, NGOs, and philanthropic individuals who align with the program's mission.

#### **5. HolyName/CRUDEM Foundation Collaboration:**

- Leverage the longstanding support from the CRUDEM foundation.
- Explore collaborative initiatives and joint fundraising efforts with CRUDEM to strengthen financial backing and sustainability.

#### **6. Training Local Prosthetists:**

- Invest in training local individuals as prosthetists to reduce dependency on external expertise.
- Establish a training program in collaboration with educational institutions or organizations to build a sustainable pool of qualified professionals within Haiti.

#### **7. Monitoring and Evaluation:**

- Implement a robust monitoring and evaluation system to track the financial performance and impact of the prosthetic program.
- Regularly assess and adjust the pricing model, partnerships, and fundraising strategies based on the evolving needs and challenges.

By combining these strategies, the prosthetic program can strive towards financial sustainability while ensuring that quality care remains accessible to the Haitian population in need.

## **6. THE CULTURE**

Understanding the cultural landscape in Haiti, we acknowledge the historical stigmas associated with limb loss. Haitian surgeons hesitate to perform amputations due to these stigmas and also due to the lack of availability of prosthetic limbs. This leaves patients crippled with untreatable leg deformities and infections where an amputation and prosthetic limb could restore normal function. Our comprehensive program not only aims to address physical needs but also seeks to positively influence societal attitudes. By providing natural-looking limbs, we aim to counteract negative perceptions and contribute to the social reintegration of prosthetic users.

## 7. BUDGET CONSIDERATION

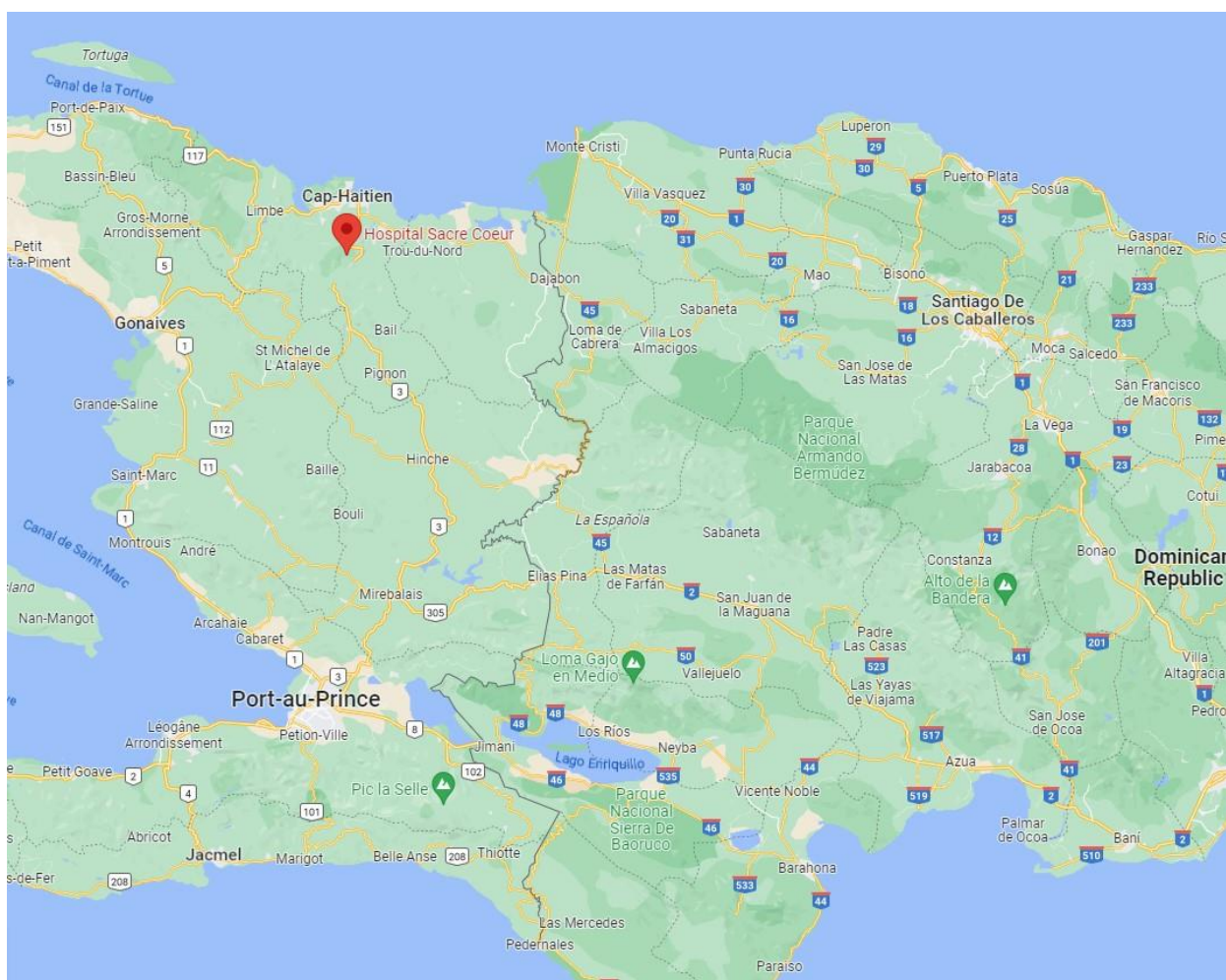
Project Title:	Northern Haiti P&O Center							
ONG:	SwissLimbs, NAVMC, HSC, FFTP, Lovejoy							
	Year 1:		Year 2:		Year 3:		TOTAL	
	Budget	%	Budget	%	Budget	%	Budget	%
<b>COSTS</b>								
<b>Investments</b>								
Machines & Tools (annex 1)	75,000	100%		0		0	75,000	100%
<b>Total Investments</b>	<b>75,000</b>	<b>100%</b>					<b>75,000</b>	<b>100%</b>
<b>Operational expenses</b>		29%						19%
Training missions for technicians (annex 2)	14,440	8%	14,440	83%	7,220	7%	36,100	11%
Prosthetic materials (annex 3)	80,150	43%			54,350	49%	134,500	43%
Orthotic materials (annex 3)	45,000	24%			20,000	18%	65,000	21%
Assistive devices (annex 3)	26,250	14%			11,250	10%	37,500	12%
Logistic costs (annex 3)	17,500	9%			14,500	13%	32,000	10%
*Salaries for local orthopaedic personnel								
*Project management costs of local partner								
*Operational costs for local orthopaedic workshop								
<b>Project costs</b>								
Project management SwissLimbs HQ	3,000	2%	3,000	17%	3,000	3%	9,000	3%
Other Administrative costs of Partners								
*Administrative costs (TBD)								
*Monitoring and assessment (TBD)								
<b>Total Operating Expense</b>	<b>186,340</b>	<b>100%</b>	<b>17,440</b>	<b>100%</b>	<b>110,320</b>	<b>100%</b>	<b>314,100</b>	<b>100%</b>
		71%		100%		100%		81%
<b>Total Project costs (USD)</b>	<b>261,340</b>	<b>100%</b>	<b>17,440</b>	<b>100%</b>	<b>110,320</b>	<b>100%</b>	<b>389,100</b>	<b>100%</b>
<b>Income</b>								
<b>Local contributions</b>								
Hopital Sacre Coeur (lab operations + salaries)	75,000						75,000	
<b>Local Contributions</b>	<b>75,000</b>						<b>75,000</b>	
<b>Donations</b>								
SwissLimbs donations	50,000	20%	32,000	100%	32,000	100%	114,000	36%
NAVMC	200,000	80%					200,001	64%
<b>External Contributions</b>	<b>250,000</b>	<b>100.0%</b>	<b>32,000</b>	<b>100%</b>	<b>32,000</b>	<b>100%</b>	<b>314,001</b>	<b>100%</b>
<b>TOTALE INCOME (USD)</b>	<b>325,000</b>		<b>32,000</b>		<b>32,000</b>		<b>389,000</b>	
<b>Percent Funded</b>								<b>100%</b>

## 9. CONCLUSION

The re-establishment of the Prosthetic and Orthotic Program at Hôpital Sacré Coeur represents a collaborative effort to empower the people of Northern Haiti. Through this initiative, we aim to not only restore mobility but also uplift dignity, fostering a self-sustaining program that serves as a model for comprehensive care in the region. Together, with our partners, we envision a healthier and more inclusive Haiti.



## 8. LOCATION



**GPS Coordinates Hôpital Sacré Coeur: 19°36'34.8"N 72°12'33.3"W**

## NOTES FROM 2014 HSC LAB UPDATE

By John Lovejoy, Jr., M.D. 2014

Haiti continues to be a challenge, with hurricanes, mudslides, and cholera [and now violence and subsequent inflation, and drought]. But due to all your support, the prosthetic lab remains a shining star in a dark sky.

The creation and construction of the lab was from an old shipping container that was converted into an office and then transformed into a state-of-the-art prosthetic shop.



Once the lab hit the ground in Haiti 2012, it was put to work. There were over 1,500 untreated amputees after the 2010 earthquake in northern Haiti. With a population of more than a million [now 2.5 million], there were no certified prosthetists to treat them.

It is not just a matter of making a one-time prosthesis because each one needs to be serviced and replaced every year or two.



We started out with visiting CPOs from the US and were able to meet the immediate need following the earthquake. However, to make the lab sustainable we needed to train Haitians to become certified prosthetists.



HSC enrolled 2 techs in the University of Don Bosco in El Salvador, a program designed for Central America and the Caribbean. We initially hired a student to go online to follow the curriculum and be proctored by visiting prosthetists. This model did not succeed so we searched for another way. Thankfully, we found Oscar Bermudéz, a certified prosthetist from El Salvador who had trained at the UDB, worked in Haiti after the earthquake, and was willing to come and work and teach students. In a very professional way, he developed a screening process and exam for potential students. The response to the announcement that CRUDEM/HSC was looking for students to train was overwhelming, but Oscar narrowed it down to two students.

Student Dantus Gilles fabricating a prosthesis



Dantus Gilles and Daniel Etienne have proved themselves by passing the first of six sections to become certified with the highest marks. This is a real tribute to Oscar's tutelage and involvement in their education.

The first year is near completion and Oscar has agreed to stay on for another year. The program takes three years and has six modules the students have to pass. So far we have been able to support the project with donations to CRUDEM designated for the Prosthetic Lab.

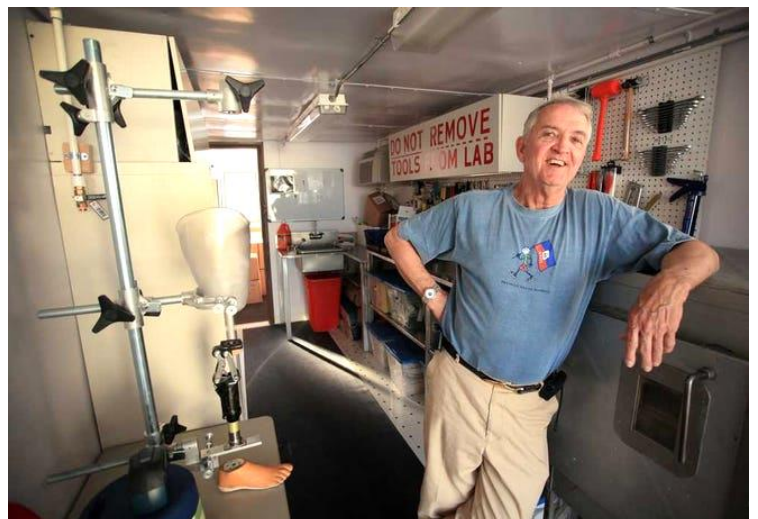


It is expensive, about \$26,000 for the educational component, \$22,000 for operational expenses and \$31,000 for the prosthetic components annually (we do not charge the patients anything). When you consider what it costs in the US for prostheses, tens of thousands of dollars per patient, we are providing a service at a phenomenal price.

So far in 2014 year, the lab has produced 42 artificial limbs, 15 orthosis (braces), 20 repairs or replacements of existing prostheses and has a waiting list of 10 patients who need prosthetics.

Dantus and Daniel agreed to stay on for three years after getting their degrees, to teach three more students. With continued support, hopefully it will be an ongoing project.

**Dr. John Lovejoy Jr. Orthopedic Surgeon at the first Prosthetic lab at Hopital Sacre Coeur.**



## APPLICANTS AND PARTNERS

We thank you in advance for your attention and support.



**Dr. John Lovejoy, Jr.**



**Filippo Nishino**

President

A handwritten signature in blue ink, appearing to read "Filippo Nishino", written over a horizontal line.

Tel: +41 78 943 99 98

E-mail: [f.nishino@swisslimbs.org](mailto:f.nishino@swisslimbs.org)

**Pietro Camenisch**

Operations and fundraising manager

A handwritten signature in blue ink, appearing to read "P. Camenisch", written over a horizontal line.

Tel: +41 79 627 49 22

E-mail: [p.camenisch@swisslimbs.org](mailto:p.camenisch@swisslimbs.org)